

WHAT IS CLAIMED IS:

1. A field emission display, comprising:

a first substrate;

at least one gate electrode formed in a predetermined pattern on the first

5 substrate;

a plurality of cathode electrodes formed in a predetermined pattern on the first substrate, the plurality of cathode electrodes forming overlap regions corresponding to pixel regions with the at least one gate electrode;

an insulation layer formed between the at least one gate electrode and
10 the plurality of cathode electrodes;

at least one pair of emitters electrically connected to the cathode electrodes;

a second substrate opposing the first substrate with a predetermined gap therebetween, the first and second substrates forming a vacuum assembly when
15 interconnected;

at least one anode electrode formed on a surface of the second substrate opposing the first substrate; and

phosphor layers formed on the second substrate electrically connected to the at least one anode electrode.

20 2. The field emission display of claim 1, wherein the at least one pair of emitters is formed at a predetermined distance from each other and closely contacting the cathode electrode.

3. The field emission display of claim 1, wherein the at least one pair of

emitters are longitudinal and extend in a direction of the pattern of the at least one gate electrode.

4. The field emission display of claim 1, wherein the at least one pair of emitters are carbon nanotubes.

5 5. The field emission display of claim 1, wherein the plurality of cathode electrodes are opaque.

6. The field emission display of claim 1, wherein each of the plurality of cathode electrodes includes an opening in the overlap region and the at least one pair of emitters is formed in the opening.

10 7. The field emission display of claim 1, wherein the at least one pair of emitters formed on one of the plurality of cathode electrodes in the overlap region.

8. The field emission display of claim 1, further comprising: a metal mesh grid mounted between the first substrate and the second substrate, and including openings corresponding to the overlap regions.

15 9. The field emission display of claim 1, wherein the at least one pair of emitters are formed on the insulation layer.